

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C. 20460



OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES  
Antimicrobial Division

7/18/2005

**SUBJECT:** PRODUCT CHEMISTRY REVIEW OF: **CDRW-D5**  
**DP Barcode:** D317297  
**Reg. No. or File Symbol** 71654-O

**TGAI/Manufacturing-use Product** ☐ **OR** **End-use Product** ☒

**TO:** Delores Williams  
PM Team 32  
**FROM:** Juan F. Negrón, Chemist *JFN*  
Product Science Branch, CT Team  
Antimicrobial Division (7510C)  
**THRU::** Karen P. Hicks, CT Team Leader  
Product Science Branch  
Antimicrobial Division (7510C)  
**THRU:** Michele E. Wingfield, Chief  
Product Science Branch  
Antimicrobial Division (7510C)  
**APPLICANT:** E.I. Dupont De Nemours and Company

*K.P. Hicks*  
7/19/05

**Action code:** 362  
**Due date:** 08/25/05

**Product Formulation**  
**Active Ingredient(s)**

Sodium dichloro-s-triazinetriene

**% by wt.**  
15

## BACKGROUND:

The registrant, E.I. Dupont De Nemours and Company, is submitting a new registration data package for review. The non-integrated end-use product, **CDRW-D5**, is an oxygen based oxidizer, and a chlorinating agent, combined with a pH buffer and a dry clarifier. The product continues to boost free chlorine to keep water clear, by oxidizing and eliminating organic contaminants.

## FINDINGS:

1. The Product Chemistry Reviewer has received the following documents:
  - Confidential Statement of Formula (CSF), dated 04/25/05, for the basic formulation.
  - Justification for Registrant-proposed Certified Limits for Active Ingredient in CDRW-D5.
  - Certification Statement for Confidential Statement of Formula, dated 04/25/05.
  - A letter, dated 04/25/05. MRID # 465468-00.
  - The label, dated 04/29/05 (pin punch).
  - Application for pesticide, dated 09/01/04.
  - Study titled "CDRW-D5: Self Certification Statement for the Physical Chemical Properties." MRID # 465468-01.
  - Study titled "PRODUCT IDENTITY AND COMPOSITION OF CDRW-D5." MRID # 465369-07.
  - Study titled "Enforcement Method to Determine %Active Ingredient in CDRW-D5." MRID # 465369-08.
2. The CSF, dated 04/25/05, for the basic formulation is revised.
3. The registrant is requesting a wider range. However, the justification is showing that the nominal of the active ingredient (AI) is 45.0%. The label shows a nominal of 15% for the AI.
4. The CSF and the label have the same nominal.
5. All inerts have clearance for inert use.
6. The registrant uses a different language for container disposal (see PR Notice 83-3). The registrant does not indicate or justify the use of different language on the label for storage and disposal.
7. The registrant does not indicate the size of the product to market. This information indicates the PR Notice (83-3 or 84-1) with which the label should harmonize.



## **RECOMMENDATIONS:**

1. The registrant needs to use the language suggested in PR Notice 83-3. Otherwise, the registrant needs to submit a justification for review.
2. The registrant should calculate the certified limits for all components.
3. The registrant needs to indicate the production size for marketing.
4. The registrant must update the 830 Product Properties Test Guidelines.
5. The registrant needs to submit a wider range justification for the AI with a nominal of 15% as per label along with the certified limits and not 45%.
6. The registrant needs to reflect an agreement between the CSF and the 830 Product Properties Test Guidelines for density and the pH.
7. The registrant needs to clarify the flammability statement between the CSF, label and the 830 Product Properties Test Guidelines.

## **CONCLUSION:**

The CSF, dated 04/25/05, for the basic formulation is acceptable. The CSF and the label have the same nominal. The registrant must comply with the requirements, recommendations and findings listed above.

## PRODUCT CHEMISTRY REVIEW

### 6. CONFIDENTIAL STATEMENT OF FORMULA

6a. Type of formulation and source registration

- Non-integrated formulation system ☒ [X]
- Are all TGAIs used registered? Yes ☐ No ☐ NA ☒ [X]
- Integrated formulation system ☐ []
- if "ME-TOO", specify EPA Reg. # of existing product:

6b. Clearance of inerts for non-food or food use:

Cleared for food use under 40 CFR §180.1001: Yes ☒ [X] No ☐ NA ☐ []

6c. Physical state of the product: Solid.

6d. The chemical IDs and analytical information (including that for the TGAIs), density, pH, and flammability are consistent with that given in 830.1000, Series A and 830.7300, .7000 and .6315 respectively: Yes ☐ No ☒ [x]

6h. NCs and CLs are: acceptable ☒ [x] Not acceptable ☐ []

6i. Active ingredient (s)	NC	UCL	LCL
A. Sodium dichloro-s-triazinetriene	15	16.0	14.0

6j. For products produced by an integrated formulation system:

- All impurities of toxicological significance have a UCL?  
Yes ☐ No ☐ Not applicable ☒ [X]
- All impurities of  $\geq 0.1\%$  in the product have been identified?  
Yes ☐ No ☐ Not applicable ☒ [X]



7. PRODUCT LABEL

7a. The active ingredients statement (chemical IDs and NC) is consistent with the CONFIDENTIAL STATEMENT OF FORMULA? Yes [x] No []

7b. The formulation contains one of the following:

- 10% or more of a petroleum distillate: Yes [ ] No [X]
- 1.0% or more of methyl alcohol: Yes [ ] No [X]
- Sodium nitrite at any level: Yes [ ] No [X]
- a toxic List 1 inert at any level: Yes [ ] No [X]
- arsenic in any form: Yes [ ] No [X]

7c. If Yes to any of the above, does the inert ingredients statement contain a footnote indicating this? Yes [] No [] Not applicable [X]

7d. The appropriate warning statement regarding flammability or explosive characteristics of the product are listed on the label?  
Yes [ ] No [ ] Not applicable [X]

7e. The storage and disposal instructions for the pesticide and container are in compliance with PR Notice 84-1 for household use products or PR Notice 83-3 for all other uses? PR Notice 84-1 Yes [] No [x] Not applicable []  
PR Notice 83-3 Yes [] No [x] Not applicable []

7f. Does the product require an expiration date at which time the NC falls below the LCL (based on the one year storage stability data or other information)?  
Yes [] No [] Pending [X]

8a.

**PRODUCT CHEMISTRY (Series 830 Part A)**

	Acceptance of Information	MRID No.
830.1550 Chemical ID (See Appendix)	A	465369-07
830.1600 Description of Materials	A	465369-07
830.1620 Description of Production Process <sup>2</sup>	NA	
830.1650 Description of Formulation Process	A	465369-07
830.1670 Discussion of Impurities	A	465369-07
830.1700 Analysis <sup>5</sup>	NA	
830.1750 Certified Limits	A	465369-07
830.1800 Analytical Method for AIs	A	465369-08

Explanation: A=acceptable; N=not acceptable; NA=technically not applicable; NR= not required,

G=data gap; U=requires upgrading; W=waived; E=EPA estimate.

<sup>1</sup>See Confidential Appendix A for additional information

<sup>2</sup>For MP/EP products produced by an integrated formulation system.

<sup>3</sup>For products from a TGAI or MP.

<sup>4</sup>May be waived unless actual/possible impurities are of toxicological concern.

<sup>5</sup>Five batch analysis required for products produced by an integrated formulation system.

<sup>6</sup>If different from standard CLS recommended in 40 CFR 158.175, this should be discussed in Confidential Appendix A.

<sup>7</sup>Abbreviate method used as follows: gas chromatography (GC), infrared (IR),



**Physical and Chemical Characteristics (Series 830, Part B)**

8b. <u>Physical/Chemical Properties*</u>	Acceptance of data	Value or qualitative description	MRID No.
830.6302 Color	NA		
830.6303 Physical State	A	Solid	465369-09
830.6304 Odor	NA		
830.6313 Stability to normal & elevated temp., metals, & metal ions	NA		
830.6314 Oxidation/Reduction: chemical incompatibility.	A	incompatability	465369-09
830.6315 Flammability/Flash Pt ✓	G		
830.6316 Explodability ✓	G		
830.6317 Storage stability ✓	G		
830.6319 Miscibility ✓	G		
830.6320 Corrosion characteristics ✓	G		
830.6321 Dielectric breakdown voltage ✓	G		
830.7000 pH	A	7.16 @ 25°C	465369-09
830.7050 UV/Visible absorption	NA		
830.7100 Viscosity ✓	G		
830.7200 Melting point/melting range	NA		
830.7220 Boiling point/ boiling range	NA		
830.7300 Density/sp. gravity	A	1.39 g/ml @ 22°C	465369-09
830.7370 Dissociation constants in water	NA		
830.7520 Particle size, fiber length, & diameter distribution	NA		
830.7550 Partition coefficient(n-octanol/water), shake flask method	NA		
830.7560 Partition coefficient(n-octanol/water), generator column method	NA		
830.7570 Partition coefficient(n-octanol/water),	NA		
830.7840 Water solubility: Column elution method; shake flask method	NA		
830.7860 Water solubility, generator column method	NA		
830.7950 Vapor pressure	NA		

Explanation: A=acceptable; N=not acceptable; NA=technically not applicable; NR= Not required  
G=data gap; U=requires upgrading; W=waived; E=EPA estimate.

<sup>1</sup>= Registrant must perform one year study.

\* Provide brief description, e.g., color--yellow or property value, e.g., density 1.25 g/cc;  
Unless otherwise indicated, the property should be at 25°C.